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| 10/032,394 | 12/19/2001 | Adityo Prakash | 10006.000610 | 5415 |

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| EXAMINER |
|---|
| ROSARIO, DENNIS |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## DETAILED ACTION

### *Response to After Final Amendment*

1. The after final amendment was received on 3/23/09. Claims 2-4,6-10,15-20,23-42 are pending.

### *Response to Arguments*

2. Applicant's arguments filed 3/23/09 have been fully considered but they are not persuasive.

Applicants state that Lee 1 does not clearly teach an inverse of a gradient value. Upon further review, Lee 1 does broadly teach an inverse of a gradient value: Said "8" or 1/8 of the office action of 1/28/09 on page 5 and corresponding to table 1 of Lee 1 is **broadly** (emphasis added) of a gradient value since gradient values in fig. 8A are operated upon said 1/8 giving for example A/8 where A is a gradient or intensity or pixel value dived by 8. Thus, Lee 2 to cure Lee 1's deficiencies is not really needed. Note that the claims suggest 1/A; however, the claims have not clearly limited A as a denominator.

Applicants state that Lee 2 does not disclose wherein filter coefficients for an interpolation filter are scaled by an inverse of a gradient value. The examiner respectfully disagrees since Lee 2 **broadly** (emphasis added) filter coefficients (fig. 4B corresponding to fig. 2:70) for an interpolation filter (given that 4B in an averaging filter) are scaled (due to averaging) by an inverse (or denominator for averaging) of a gradient value (fig. 2:10 that will be averaged by the denominator).

Applicants state that the assertion by the examiner contradicts Lee 2. The examiner respectfully disagrees since Lee 2 teaches using mathematics in said equation (2)-(4) that reasonably includes coefficients, as known to one of ordinary skill in mathematics, operated upon in fig. 2:40 that dictates which filter to use. Thus, **broadly** (emphasis added) coefficients in equations (2)-(4) can reasonably be called filter coefficients.

Applicants state that the examiner supplies no explanation as to how a mean value and a standard deviation read upon the claimed filter coefficients. The examiner has **broadly** (emphasis added) concluded that any value used for multiplication is a coefficient. Thus, clearly equations (2)-(4) are performing multiplication, so coefficients exist such as the mean value and standard deviation that are multiplied. For example, $\sigma_n/m_n \times T_g$ that can be expanded known to one of ordinary skill in math to $(\sigma_n) \times (1/m_n) \times (T_g)$ corresponding to equation 2 has three coefficients, $\sigma_n$ and $m_n$ and $T_g$, since each of $\sigma_n$ and $m_n$ and $T_g$ is multiplied with one of $\sigma_n$ and $m_n$ and $T_g$.

Applicants state that mean values and standard deviations and local threshold values are different than filter coefficients. The examiner agrees that there can be a difference, but the claims have not clearly defined what filter coefficients are. The examiner has provided a broad interpretation of filter coefficients that read upon the claims and suggest clearly establishing a coefficient that is applied within a filter as Lee 2 shows in fig. 4B and 4C.

Applicants state that the examiner supplies no explanation as to how the local threshold in Lee 2 reads upon the claimed filter coefficients. The examiner has

interpreted the threshold to be a function of at least three coefficients as described above. Thus, the threshold as a function of at least three coefficients dictates which filter to use. So indirectly, coefficients are being used to select a filter. Again, the applicants suggest that the coefficients directly appear within a filter to arrive at the claimed filter coefficients; however, such a feature is not claimed.

Applicants state that equations (2)-(4) are applied by fig. 2:40 and not by the average filter 70. The examiner respectfully disagrees since 70 needs or depends on 40 to properly operate. Thus, in effect equations (2)-(4) are applied by 70.

Applicants state that 70 does not apply to equations (2)-(4). The examiner respectfully disagrees since 70 indirectly applies said (2)-(4) via 60 and 50 and 40 of fig. 1. Again, the examiner suggests further limiting the filter coefficients to be within a filter, since clearly the coefficients of fig. 2:40 are not within fig. 2:70.

/Dennis  Rosario/

Examiner, Art Unit 2624


/Matthew C Bella/

Supervisory Patent Examiner, Art Unit 2624